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OSCILLOSCOPE

1. GENERAL. This procurement requires a general purpose, portable, battery powered, dual-trace oscilloscope.

2. CLASSIFICATION. Type II, Class 3, Style E, and Color R in accordance with MIL-T-28800.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of operation within the following minimum accuracies, limits, and specifications.

3.1 Vertical system. Unless otherwise specified, the specifications detailed below apply to two independent vertical inputs. The inputs shall be isolated from the equipment chassis and the opposite channel. The equipment shall have integral probes. The design shall be such that the operator cannot come into contact with input common at the equipment.

3.1.1 Bandwidth. DC to 10 MHz.

3.1.2 Deflection factor. 5 mV/div to 50 V/div. Accuracy: $\pm 3\%$ of six major graticule divisions.

3.1.3 Maximum input voltage. 400V (dc + peak ac).

3.1.4 Vertical modes. Channel 1, channel 2, alternate, and chop. Provision shall be made for inverting channel 2.

3.1.5 Input impedance. 1 megohm, nominal.

3.2 Horizontal system.

3.2.1 Time base. Range: 1 us/div to 200 ms/div. Accuracy: $\pm 3\%$ of eight major graticule divisions.

3.2.2 Triggering. Internal and external triggering shall be provided. Sensitivity: 0.5 division internal, 150 mV external, from dc to 5 MHz, decreasing to 1.5 divisions internal, 500 mV external, at 10 MHz.

3.3 Display. Usable display area: Eight vertical by ten horizontal divisions with an internal graticule ruled in 0.2-inch, or larger, squares and subdivided in 0.2 division increments along the center axes. If a liquid crystal display is provided, it shall have backlighting capability.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal and dc internal power source requirements are invoked as detailed below.

4.1.1 Nominal power source. Maximum power consumption: 50W.

4.1.2 DC internal power source: A charger and internal batteries are required. Minimum operating time shall be 2 hours following a maximum recharge time of 16 hours.

4.2 Weight. 5 kg (11 lb) maximum.

4.3 Dimensions. 127 mm (5 in) high, 229 mm (9 in) wide, and 356 mm (14 in) deep.

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4.4 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.